CAMB42 — BIOSTATISTICS
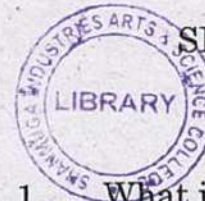
Time : Three hours   Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is frequency distribution?

2. Define data.

3. What is arithmetic mean?

4. What is standard deviation?

5. Define correlation.

6. Write down the formula of Karl Pearson's coefficient of correlation.

7. Define variance.

8. What is F-test?

9. What is ANOVA?

10. What is experimental design?

2605

SECTION B — (5 × 5 = 25 marks)

Answer ALL the questions.

11. (a) Explain the types of classification of data.

Or

(b) Discuss the scope of Biostatistics.

12. (a) Give an account on mean, its merits and demerits.

Or

(b) Analyze the various measures of dispersion.

13. (a) Two investigators rank the intensity of flower colours as follows. What is the rank correlation between the judgements of the two investigators?

I – Investigator   1 2 3 4 5 6

II – Investigator   3 1 4 2 6 5

Or

(b) What is regression analysis? Explain the types.

14. (a) Enumerate the conditions for the application of Chi-square test.

Or

(b) What is t- distribution? What are its uses?

15. (a) Describe any one type of experimental design.

Or

(b) Summarize the basic principles of experimental designs.

SECTION C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Write an essay on the tabulation of data.

17. Compute the co-efficient of variation for the following data.

No. of cells	0-5	5-10	10-15	15-20	20-25	25-30	30-35
Frequency	5	12	16	21	30	14	2

18. Describe the types and methods of studying correlation.

19. Write notes on

(a) Test of significance

(b) Characteristics of Chi-square test.

20. Enumerate the principles and steps involved in one way ANOVA.